Abstract

The bit error rate (BER) performance of the Code Division Multiple Access (CDMA) cellular system based on IS-95 standard in the presence of an additive white Gaussian noise (AWGN) and interference has been investigated in this paper. The performance is evaluated under two types of decision feedback receivers for the CDMA reverse link. These two feedback receivers
are: (a) Hard decision Viterbi decoder in which coded bit is estimated based on Hamming Distance method and (b) Soft decision Viterbi decoder in which Euclidean Distance method is used for coded bit estimation. The comparison of these two techniques of decision feedback receivers of CDMA is done under AWGN channel. The performance of CDMA system is shown in graphs between BER versus Energy per bit to Noise Ratio i.e. Eb/No ratio.

Reference

- Frankie Mak, “Cellular IS-95 CDMA Forward Link Simulator” university of Queensland, Oct.2002

**Index Terms**

Computer Science

Communications

**Key words**

CDMA

BER

Chip Rate

Chip period

Eb/No

PN codes